



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,483	02/28/2002	Jeffrey L. Beseth	1528.030US1	2117
7590 09/09/2005 DEVON A. ROLF C/O GARMIN INTERNATIONAL, INC. 1200 EAST 151 STREET OLATHE, KS 66062			EXAMINER TRAN, THANH Y	
			ART UNIT 2822	PAPER NUMBER
DATE MAILED: 09/09/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Best Available Copy

Office Action Summary	Application No. 10/086,483	Applicant(s) BESETH ET AL.	
	Examiner Thanh Y. Tran	Art Unit 2822	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-37 is/are allowed.
- 6) ☒ Claim(s) 1-21 and 31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 5-6, 16, 18, 21, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Moss et al (U.S. 6,144,549).

As to claim 1, Moss et al discloses in figures 1-3 a device for mounting an avionic instrument system to a mounting surface (a mounting surface is an inner surface of a frame comprising elements 110, 112, 114), comprising: an electronic module (comprising circuit board 190) coupled to the mounting surface; and a display unit (140 or 240) located directly in front of the electronic module (circuit board 190) and in communication with the electronic module (via cable 192) (see col. 3, lines 49-65), the display unit (140 or 240) having a first range of mounting locations (a first range of mounting locations can be a range of mounting locations/points in the mounting surface of the display unit 140 or 240, that corresponds to hinges 270) with respect to the electronic module (circuit board 190), wherein the display (140 or 240) remains usable and directly in front of the electronic module (190) throughout the first range of mounting locations (a first range of mounting locations can be a range of mounting locations/points in the mounting surface of the display unit 140 or 240, that corresponds to hinges 270). As to the claim language on lines 6-7, the applicant should be note that this is merely intended use language, and does not add any appreciable weight to the claim. Furthermore, since the prior art reference recites the

Art Unit: 2822

same (structural limitation OR method steps) as in the applicant's claim, the reference is seen by the examiner as being able to perform the same intended use.

As to claim 3, Moss et al discloses in figures 1-3 a device for mounting an instrument system to a mounting surface, further including a motherboard interface (cable 192) coupled between the electronic module (circuit board 190) and the display unit (see col. 3, lines 10-22, and col. 3, lines 49-65).

As to claim 5, Moss et al discloses in figures 1-3 a device for mounting an instrument system to a mounting surface, wherein the display unit (140 or 240) includes a flat panel display screen ("FPD") (see col. 3, lines 10-22).

As to claim 6, Moss et al discloses in figures 1-3 a device for mounting an instrument system to a mounting surface, wherein the display unit (140 or 240) includes a liquid crystal display ("LCD") screen (see col. 1, lines 25-38).

As to claim 16, Moss et al discloses in figures 1-3 an avionic instrument mounting system, comprising: a first mounting frame (a first mounting frame comprising elements 110, 112, 114) adapted for mounting to an avionic mounting surface (a mounting surface is an inner surface of chassis 310); a second mounting frame (chassis 310) coupled to the first mounting frame (comprising elements 110, 112, 114) along a module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points in the side panel 130) with respect to the first mounting frame (comprising elements 110, 112, 114); and a display unit (140 or 240) located directly in front of the first mounting frame (comprising elements 110, 112, 114), the display unit (140 or 240) having a display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points in

Art Unit: 2822

the mounting plane of the display unit 140 or 240, that corresponds to hinges 270) with respect to the first mounting frame (comprising elements 110, 112, 114); and wherein the module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points or guides in the side panel as indicated at 130) is arranged substantially perpendicular to the display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points in the mounting plane of the display unit 140 or 240, that corresponds to hinges 270).

As to claim 18, Moss et al discloses in figures 1-3 an instrument mounting system, further including an electronic module (circuit board 190) coupled to the second mounting frame (chassis 310) via a cable 194.

As to claim 21, figures 1-3 of Moss et al disclose the module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points or guides in the side panel as indicated at 130) includes a horizontal range of mounting locations (a horizontal range of mounting locations can be a range of horizontal mounting guides of rail 130).

As to claim 31, Moss et al discloses in figures 1-3 an instrument mounting system, comprising: a first mounting frame (comprising elements 110, 112, 114) adapted for mounting to a mounting surface (a mounting surface is an inner surface of chassis 310); a plurality of electronic modules (190 and 325), a second mounting frame (chassis 310) coupled to each of the electronic modules (190 and 325) and coupled to the first mounting frame (comprising elements 110, 112, 114) along a module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points or guides in the side panel as indicated at 130) with respect to the first mounting frame (comprising elements 110, 112, 114); a display unit

Art Unit: 2822

(140 or 240) located directly in front of the first mounting frame (comprising elements 110, 112, 114), the display unit (140 or 240) having a display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points in the mounting plane of the display unit 140 or 240, that corresponds to hinges 270) with respect to the first mounting frame (comprising elements 110, 112, 114); and wherein the module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points or guides in the side panel as indicated at 130) is arranged substantially perpendicular to the display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points in the mounting plane of the display unit 140 or 240; that corresponds to hinges 270). As to the claim language on lines 1-2, the applicant should be note that this is merely intended use language, and does not add any appreciable weight to the claim. Furthermore, since the prior art reference recites the same (structural limitation OR method steps) as in the applicant's claim, the reference is seen by the examiner as being able to perform the same intended use.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moss et al (U.S. 6,144,549) in view of Claprood (U.S. 6,356,441).

As to claims 2 and 9, Moss et al does not disclose a device wherein a first mounting frame coupled to the mounting surface; a second mounting frame has a horizontal range of mounting locations and coupled between the electronic module and the first mounting frame along a second range of mounting locations with respect to the first mounting frame.

Claprood discloses in figure 3 a device wherein a first mounting frame (82) coupled to the mounting surface ("other devices") (see col. 6, lines 21-34, frame 82 can couple/connect to other devices (other mounting surface) via connector 90, connecting portion 116, and card 108); a second mounting frame (housing 104) has a horizontal range of mounting locations (horizontal range of guides 112) and coupled between the electronic module (comprising elements 106, 108) and the first mounting frame (82) along a second range of mounting locations (guides 112 and 114) with respect to the first mounting frame (82). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Moss et al by having a second mounting frame which is coupled between the electronic module and the first mounting frame along a second range of mounting locations with respect to the first mounting frame as taught by Claprood for guiding the electronic module into the housing or the first mounting frame.

5. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moss et al (U.S. 6,144,549) in view of Welch et al (U.S. 4,743,200).

As to claims 4 and 17, Moss et al does not disclose the mounting surface includes a cockpit instrument panel. Welch et al discloses a display system having an arrangement with a cockpit instrument panel (see col. 2, lines 47-60). Therefore, it would have been obvious to a

Art Unit: 2822

person having ordinary skill in the art at the time the invention was made to modify the display system of Moss et al by having a cockpit instrument panel as taught by Welch et al for allowing the observer to see the immediate environment (see col. 2, lines 47-60 in Welch et al).

6. Claims 7-8, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moss et al (U.S. 6,144,549) in view of Chikawa et al (U.S. 2002/0024802).

As to claim 7, Moss et al discloses in figures 1-3 a device comprising a first range of mounting locations (a first range of mounting locations can be a range of mounting locations/points in the mounting plane of the display unit 140 or 240, that corresponds to hinges 270).

Moss et al does not disclose a first range of mounting locations includes a vertical range of mounting locations.

Chikawa et al discloses in figures 3(a), 3(b) and 4 a device comprising a first range of mounting locations (10, 11) includes a vertical range of mounting locations (11) (see paragraph [0070]). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Moss et al by having a first range of mounting locations includes a vertical range of mounting locations as taught by Chikawa et al for securing or engaging the display unit to other element (e.g. printed circuit board 15) (see paragraph [0070] in Chikawa).

As to claim 8, Moss et al does not disclose a device including three dimensional ranges of mounting locations of the single display unit with respect to the electronic module.

Art Unit: 2822

Chikawa et al discloses in figures 3(a), 3(b) and 4 a device including three dimensional ranges of mounting locations (10, 11) of the single display unit (liquid crystal panel 2) with respect to the electronic module (15) (see paragraph [0070]). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Moss et al by including three dimensional ranges of mounting locations of the single display unit with respect to the electronic module as taught by Chikawa et al for strongly securing or engaging the display unit to other element (e.g., printed circuit board 15) (see paragraph [0070] in Chikawa).

As to claim 13, Moss et al discloses in figures 1-3 an instrument mounting system, wherein the display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points in the mounting plane of the display unit 140 or 240, that corresponds to hinges 270).

Moss et al does not disclose a first range of mounting locations includes a vertical range of mounting locations.

Chikawa et al discloses in figures 3(a), 3(b) and 4 a device comprising a display range of mounting locations (10, 11) includes a vertical range of mounting locations (11) (see paragraph [0070]). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Moss et al by having a display range of mounting locations includes a vertical range of mounting locations as taught by Chikawa et al for securing or engaging the display unit to other element (e.g. printed circuit board 15) (see paragraph [0070] in Chikawa).

As to claim 20, Moss et al discloses in figures 1-3 an instrument mounting system, wherein the display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points in the mounting plane of the display unit 140 or 240, that corresponds to hinges 270).

Moss et al does not disclose a first range of mounting locations includes a vertical range of mounting locations.

Chikawa et al discloses in figures 3(a), 3(b) and 4 a device comprising a first range of mounting locations (10, 11) includes a vertical range of mounting locations (11) (see paragraph [0070]). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Moss et al by having a first range of mounting locations includes a vertical range of mounting locations as taught by Chikawa et al for securing or engaging the display unit to other element (e.g. printed circuit board 15) (see paragraph [0070] in Chikawa).

7. Claims 10-11, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moss et al (U.S. 6,144,549) in view of Revis (U.S. 6,359,775).

As to claim 10, Moss et al discloses in figures 1-3 an avionic instrument mounting system, comprising: a first mounting frame (comprising elements 110, 112, 114) adapted for mounting to an avionic mounting surface (a mounting surface is an inner surface of a frame comprising elements 110, 112, 114), a plurality of electronic modules (190 and 325); a second mounting frame (chassis 310) coupled to each of the electronic modules (190 and 325) and coupled to the first mounting frame (comprising elements 110, 112, 114) along a module range

Art Unit: 2822

of mounting locations (a module range of mounting locations can be a range of mounting locations/points or guides in the side panel as indicated at 130) with respect to the first mounting frame (comprising elements 110, 112, 114). The applicant should be note that "avionic" is merely intended use language, and does not add any appreciable weight to the claim.

Furthermore, since the prior art reference recites the same (structural limitation OR method steps) as in the applicant's claim, the reference is seen by the examiner as being able to perform the same intended use.

Moss et al does not disclose a display unit located directly in front of the plurality of electronic modules and in communication with the electronic modules, the display unit having a display range of mounting locations with respect to the electronic modules. Revis discloses in figure 1 a mounting system comprising a display unit (128) located directly in front of the plurality of electronic modules (166, 168) and in communication with the electronic modules, the display unit (128) having a display range of mounting locations (a display range of mounting locations can be any mounting location/point, in the mounting surface of the display unit 128) with respect to the electronic modules (166, 168). It should be noted that: display unit 128 is connected to internal components (166, 168) of the computer by a flexible cable, thus the display unit 128 is in communication with electronic module ("internal components"). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Moss et al by using a display unit located directly in front of the plurality of electronic modules of the system as taught by Revis. One of ordinary skill in the art would have been motivated because using a display unit located directly in front of the plurality of the electronic modules could provide a cover for covering the internal components of the

Art Unit: 2822

computer system (see col. 1, lines 51-63 in Revis), provide an easy access for the module (“drives”), the system also may be easily adjusted to facilitate viewing of the display unit (“flat panel display device”) (see col. 4, lines 25-36 in Revis).

As to claim 11, Moss et al discloses in figures 1-3 an instrument mounting system, wherein a front face of each electronic module (190 or 325) includes a long axis (a long axis can be a horizontal axis of the module 190) and a short axis (a short axis can be a vertical axis of the module 190), and wherein each electronic module (190 or 325) is coupled to the second frame (chassis 310) with the long axis (a long axis can be a horizontal axis of the module 190) oriented vertically. It should be noted that: since a front face of each electronic module (190 or 325) is capable of vertically rotating, each electronic module (190 or 325) can couple to the second frame (chassis 310) with the long axis oriented vertically.

As to claim 14, Moss et al discloses in figures 1-3 an instrument mounting system, wherein the plurality of electronic modules (190 and 325) are coupled behind the mounting surface (mounting surface of chassis 310).

As to claim 15, figures 1-3 of Moss et al disclose the module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points in the side panel as indicated at 130) includes a horizontal range of mounting locations (a horizontal range of mounting locations can be horizontal guides in the side panel as indicated at 130).

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moss et al (U.S. 6,144,549) in view of Revis (U.S. 6,359,775) as applied to claim 10 above, and further in view of Welch et al (U.S. 4,743,200).

As to claim 12, Moss et al in view of Revis does not disclose the avionic mounting surface includes a cockpit instrument panel. Welch et al discloses a display system having an arrangement with a cockpit instrument panel (see col. 2, lines 47-60). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the display system of Moss et al in view of Revis by having a cockpit instrument panel as taught by Welch et al for allowing the observer to see the immediate environment (see col. 2, lines 47-60 in Welch et al).

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moss et al (U.S. 6,144,549).

As to claim 19, Moss et al discloses in figures 1-3 an electronic module (circuit board 190) inherently includes circuits.

The limitation of "for a global positioning system (GPS)" in claim 19 is an intended used language and has been not given patentable weight, since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex parte Masham, 2 USPQ 2d 1647 (1987).

Allowable Subject Matter

10. Claims 32-37 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: claims 32 and 37 recite, inter alia, "*an avionic instrument mounting system, comprising: a first*

mounting frame presents a first mounting surface which is aligned in a first plane; a second mounting surface which is aligned in a second plane substantially parallel to the first plane; and wherein the first mounting surface includes a first pair of substantially parallel flanges and the second mounting surface includes a second pair of substantially parallel flanges aligned at approximately ninety degrees to the first pair of flanges”; and in the combination with other claimed limitations.

The prior art of record does not teach or render obvious to modify the art of record so as to include the above mentioned-limitations.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Response to Arguments

12. Applicant's arguments filed 6/21/05 have been fully considered but they are not persuasive.

Applicant argued that claim 1 requires that the display unit both remain “usable and directly in front of the electronic module throughout the first range of mounting locations”.

In response, the examiner disagrees with applicant’s argument because Moss et al clearly discloses in figures 1-3 the display unit (140 or 240) having a first range of mounting locations (a first range of mounting locations can be a range of mounting locations/points in the mounting surface of the display unit 140 or 240, that corresponds to hinges 270) with respect to the electronic module (circuit board 190), wherein the display (140 or 240) remains usable and

Art Unit: 2822

directly in front of the electronic module (190) throughout the first range of mounting locations (a first range of mounting locations can be a range of mounting locations/points in the mounting surface of the display unit 140 or 240, that corresponds to hinges 270). As to the claim language in claim 1, on lines 6-7, the applicant should be note that this is merely intended use language, and does not add any appreciable weight to the claim. Furthermore, since the prior art reference recites the same (structural limitation OR method steps) as in the applicant's claim, the reference is seen by the examiner as being able to perform the same intended use.

Applicant further argued that Moss does not disclose a display unit located directly in front of the plurality of electronic modules and in communication with the electronic modules, the display unit having a display range of mounting locations with respect to the electronic modules.

In response, the Examiner agrees with Applicant that Moss does not disclose a display unit located directly in front of the plurality of electronic modules and in communication with the electronic modules, the display unit having a display range of mounting locations with respect to the electronic modules. However, Revis clearly discloses in figure 1 a mounting system comprising a display unit (128) located directly in front of the plurality of electronic modules (166, 168) and in communication with the electronic modules, the display unit (128) having a display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points or guides in the mounting plane of the display unit 128) with respect to the electronic modules (166, 168). It should be noted that: display unit 128 is connected to internal components (166, 168) of the computer by a flexible cable, thus the display unit 128 is in communication with electronic module ("internal components"). Therefore, it

Art Unit: 2822

would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Moss et al by using a display unit located directly in front of the plurality of electronic modules of the system as taught by Revis. One of ordinary skill in the art would have been motivated because using a display unit located directly in front of the plurality of the electronic modules could provide a cover for covering the internal components of the computer system (see col. 1, lines 51-63 in Revis), provide an easy access for the module (“drives”), the system also may be easily adjusted to facilitate viewing of the display unit (“flat panel display device”) (see col. 4, lines 25-36 in Revis).

Applicant further argued that no combination of Moss and/or Claprood discloses, suggests, or makes obvious “a second mounting frame coupled between the electronic module and the first mounting frame along a second range of mounting locations with respect to the first mounting frame”, as claimed in claim 2, or “wherein the second range of mounting locations includes a horizontal range of mounting locations”, as claimed in claim 9.

In response, the examiner disagrees with applicant’s argument because the combined teaching of Moss and Claprood clearly discloses the above limitations. Claprood clearly discloses in figure 3 a device wherein “a second mounting frame (housing 104) coupled between the electronic module (comprising elements 106, 108) and the first mounting frame (82) along a second range of mounting locations (guides 112 and 114) with respect to the first mounting frame (82)” as claimed in claim 2; and wherein the second range of mounting locations (guides 112 and 114) includes a horizontal range of mounting locations (horizontal range of guides 112)” as claimed in claim 9. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the device of Moss et al by having a second

Art Unit: 2822

mounting frame which is coupled between the electronic module and the first mounting frame along a second range of mounting locations with respect to the first mounting frame as taught by Claprood for guiding the electronic module into the housing or the first mounting frame.

Applicant further argued that neither Moss nor Revis even includes the words “cockpit”, “instrument”, or “avionic”; no combination of Moss and/or Welch discloses, suggests, or makes obvious “wherein the mounting surface includes cockpit instrument panel” as claimed in claim 4; or “wherein the avionic mounting surface includes cockpit instrument panel” as claimed in claims 12 and 17.

However, “avionic instrument” or “cockpit instrument panel” is intended use language, the applicant should be note that this is merely intended use language, and does not add any appreciable weight to the claim. Furthermore, since the prior art reference recites the same (structural limitation OR method steps) as in the applicant’s claim, the reference is seen by the examiner as being able to perform the same intended use.

Applicant further argued that Revis simply does not disclose a display unit [having a display range of mounting locations with respect to the electronic modules] and located directly in front of the plurality of electronic modules as claimed in claim 10.

In response, the examiner disagrees with applicant’s argument because Revis clearly discloses in figure 1 a mounting system comprising a display unit (128) [having a display range of mounting locations (a display range of mounting locations can be any mounting location/point, in the mounting surface of the display unit 128) with respect to the electronic modules (166, 168)] and located directly in front of the plurality of electronic modules (166, 168).

Applicant further argued that no combination of Moss and/or Revis discloses, suggests, or make obvious “a second mounting frame coupled to each of the electronic modules and coupled to the first mounting frame along a module range of mounting locations with respect to the first mounting frame” and “a display unit located directly in front of the plurality of electronic modules and in communication with the electronic modules, the display unit having a display range of mounting locations with respect to the electronic modules” as claimed in claim 10.

In response, the examiner disagrees with applicant's argument because Moss et al clearly discloses in figures 1-3 “a second mounting frame (chassis 310) coupled to each of the electronic modules (190 and 325) and coupled to the first mounting frame (comprising elements 110, 112, 114) along a module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points or guides in the side panel as indicated at 130) with respect to the first mounting frame (comprising elements 110, 112, 114)”. Moss et al does not disclose a display unit located directly in front of the plurality of electronic modules and in communication with the electronic modules, the display unit having a display range of mounting locations with respect to the electronic modules. However, Revis clearly discloses in figure 1 a mounting system comprising a display unit (128) located directly in front of the plurality of electronic modules (166, 168) and in communication with the electronic modules, the display unit (128) having a display range of mounting locations (a display range of mounting locations can be any mounting location/point, in the mounting surface of the display unit 128) with respect to the electronic modules (166, 168). It should be noted that: display unit 128 is connected to internal components (166, 168) of the computer by a flexible cable, thus the display unit 128 is in

communication with electronic module (“internal components”). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the system of Moss et al by using a display unit located directly in front of the plurality of electronic modules of the system as taught by Revis. One of ordinary skill in the art would have been motivated because using a display unit located directly in front of the plurality of the electronic modules could provide a cover for covering the internal components of the computer system (see col. 1, lines 51-63 in Revis), provide an easy access for the module (“drives”), the system also may be easily adjusted to facilitate viewing of the display unit (“flat panel display device”) (see col. 4, lines 25-36 in Revis).

Applicant further argued that no combination of Moss and/or Revis discloses, suggests, or make obvious “wherein a front face of each electronic module includes a long axis and a short axis, and wherein each electronic module is coupled to the second frame with the long axis oriented vertically” as claimed in claim 11.

In response, the examiner disagrees with applicant’s argument because Moss et al clearly discloses in figures 1-3 “a front face of each electronic module (190 or 325) includes a long axis (a long axis can be a horizontal axis of the module 190) and a short axis (a short axis can be a vertical axis of the module 190), and wherein each electronic module (190 or 325) is coupled to the second frame (chassis 310) with the long axis oriented vertically (a long axis can be a horizontal axis of the module 190). It should be noted that: since a front face of each electronic module (190 or 325) is capable of vertically rotating, each electronic module (190 or 325) can couple to the second frame (chassis 310) with the long axis oriented vertically.

Applicant further argued that no combination of Moss and/or Revis discloses, suggests, or make obvious “wherein the plurality of electronic modules are coupled behind the avionic mounting surface” as claimed in claim 14.

In response, the examiner disagrees with applicant’s argument because Moss et al discloses in figures 1-3 an instrument mounting system, wherein the plurality of electronic modules (190 and 325) are coupled behind the mounting surface (mounting surface of chassis 310). The applicant should be note that “avionic” is merely intended use language, and does not add any appreciable weight to the claim. Furthermore, since the prior art reference recites the same (structural limitation OR method steps) as in the applicant’s claim, the reference is seen by the examiner as being able to perform the same intended use.

Applicant further argued that no combination of Moss and/or Revis discloses, suggests, or make obvious “wherein the module range of mounting locations includes a horizontal range of mounting locations” as claimed in claims 15 and 21.

In response, the examiner disagrees with applicant’s argument because Moss et al clearly discloses in figures 1-3 “the module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points in the side panel as indicated at 130) includes a horizontal range of mounting locations (a horizontal range of mounting locations can be horizontal guides in the side panel as indicated at 130).

Applicant further argued that no combination of Moss and/or Revis discloses, suggests, or make obvious “wherein the module range of mounting locations is arranged substantially perpendicular to the display range of mounting locations”, as claimed in claim 16.

In response, the examiner disagrees with applicant's argument because Moss et al clearly discloses in figures 1-3 "the module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points or guides in the side panel as indicated at 130) is arranged substantially perpendicular to the display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points in the mounting plane of the display unit 140 or 240, that corresponds to hinges 270)".

Applicant further argued that no combination of Moss and/or Revis discloses, suggests, or make obvious "a first mounting frame adapted for mounting to an avionic mounting surface", "a plurality of electronic modules", "a second mounting frame coupled to each of the electronic modules and coupled to the first mounting frame along a module range of mounting locations with respect to the first mounting frame", "a display unit located directly in front of the first mounting frame, the display unit having a display range of mounting locations with respect to the first mounting frame", and "wherein the module range of mounting locations is arranged substantially perpendicular to the display range of mounting locations", as claimed in claim 31, as claimed in claim 31.

In response, the examiner disagrees with applicant's argument because Moss et al clearly discloses in figures 1-3 "a first mounting frame (comprising elements 110, 112, 114) adapted for mounting to an mounting surface (a mounting surface is an inner surface of chassis 310); a plurality of electronic modules (190 and 325), a second mounting frame (chassis 310) coupled to each of the electronic modules (190 and 325) and coupled to the first mounting frame (comprising elements 110, 112, 114) along a module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points or guides in the side

Art Unit: 2822

panel as indicated at 130) with respect to the first mounting frame (comprising elements 110, 112, 114); a display unit (140 or 240) located directly in front of the first mounting frame (comprising elements 110, 112, 114), the display unit (140 or 240) having a display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points in the mounting plane of the display unit 140 or 240, that corresponds to hinges 270) with respect to the first mounting frame (comprising elements 110, 112, 114); and wherein the module range of mounting locations (a module range of mounting locations can be a range of mounting locations/points or guides in the side panel as indicated at 130) is arranged substantially perpendicular to the display range of mounting locations (a display range of mounting locations can be a range of mounting locations/points in the mounting plane of the display unit 140 or 240, that corresponds to hinges 270)". As to the claim language on lines 1-2, the applicant should be note that this is merely intended use language, and does not add any appreciable weight to the claim. Furthermore, since the prior art reference recites the same (structural limitation OR method steps) as in the applicant's claim, the reference is seen by the examiner as being able to perform the same intended use.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

Art Unit: 2822

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Y. Tran whose telephone number is (571) 272-2110. The examiner can normally be reached on M-F (9-6:30pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TYT


AMIR ZARABIAN
EXAMINER
ART UNIT 2822

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☒ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.